Amendment dated September 15, 2003 Reply to Office Action of March 13, 2003

#### **REMARKS/ARGUMENTS**

The above Amendments and these Remarks are submitted under 35 U.S.C. § 132 and 37 C.F.R. § 1.111 in response to the Office Action mailed March 13, 2003.

### Summary of the Examiner's Action and Applicants' Response

Claims 1-13 have been rejected under 35 U.S.C. §102(e) as being anticipated by Adams, et al. (U.S. Patent No. 6,380,978). Claims 14 and 15 were rejected under 35 U.S.C. §102(e) as being anticipated by Callahan (U.S. Patent No. 6,380,985). Claims 14 and 15 were also rejected under 35 U.S.C. §102(e) as being anticipated by Tinker, et al. (U.S. Patent No. 6,456,329). In this Amendment, Claims 1, 2, 4, 5, 6, 12, 14, and 15 have been amended. Claims 3 and 7 have been canceled. Claim 16 has been added. Claims 1, 2, 4, 5, 6, and, 8-16 are pending in the application.

## Response to Rejection of Claims 1-7 under 35 U.S.C. §102(e)

Claims 1-7 have been rejected under 35 U.S.C. §102(e) as being anticipated by Adams, et al. Applicants have herein amended Claims 1, 2, 4, 5, and 6 to further define the structural differences of the embodiments of the present invention, as claimed in the referenced claims, from the structure disclosed in Adams, et al. Claims 3 and 7 have been canceled. Specifically, Claim 1 as amended includes a detection unit "for detecting if a current frame matches an entry in a look-up table and for specifying a first type of processing if there is a match and for specifying a second type processing if there is not a match." Support for the amendment is found throughout the specification, e.g., page 4, lines 22-28, page 5, line 12 - page 6, line 19, and FIGs. 3 - 6.

In contrast, Adams discloses an Image Enhancement Engine 30 that includes deinterlacers 70 and 80 that perform detection by decoded video frame or field pixel values. (Col. 8, line 65 -Col. 9, line 23, and FIGs. 4-10). Adams, et al. discloses a frame detector 142 that detects that incoming video signals were originally from a source that contains progressive frames. (FIG. 6). Adams, et al. discloses the three original types of source video detected by the frame detector 142 as: film at 24 frames per second, computer animations or frames rendered at

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30 frames per second, or still images, in which no motion occurs in the image over a period of several fields. (Col. 10, lines 29-41). Adams, et al. discloses that incoming field are written to field buffers that are read into a set of FIFO memories. The outputs of the FIFOs are synchronized so that three fields are presented as inputs to the inter-field progressive frame detector 142 which detects that incoming video signals were originally from a source that contains progressive frames. (Col. 9, line 45 - Col. 10, line 19). Adams, et al. does not disclose a detection unit for detecting if a current frame matches an entry in a look-up table and for specifying a first type of processing if there is a match and for specifying a second type processing if there is not a match, as claimed in Claim 1.

For the above reasons, Applicants respectfully submit that Claim 1 is not anticipated by Adams, et al. Claims 2-7 depend from Claim 1 and are respectfully submitted as not being anticipated by Adams, et al. for same reasons as for Claim 1.

# Response to Rejection of Claims 8-13 under 35 U.S.C. §102(e)

Claims 8-13 have been rejected under 35 U.S.C. §102(e) as being anticipated by Adams, et al. The Examiner contends that Adams, et al. discloses the system claimed in Claim 8 and the method claimed in Claim 12. Applicants respectfully disagree. Adams, et al. does not disclose a detection module including a table which defines the type of processing to be performed responsive to the current video frame position, as claimed in Claims 8. For the above reasons, Applicants respectfully submit that Claim 8 is not anticipated by Adams, et al. Claims 9-11 depend from Claim 8 and are respectfully submitted as not being anticipated by Adams, et al. for the same reasons as for Claim 8.

The method claimed in Claim 12 includes the steps of determining whether the current frame is within a predetermined time interval. Claim 12 also includes the steps of determining the type of processing to be performed on the current frame from a corresponding data table and generating a video frame in response to predetermined parameters in the data table. Adams, et al. does not disclose these determining steps, as claimed in Claim 12. Among other things, there is no teaching in Adams, et al. of predetermined parameters in a data table being used to generate a video frame, as claimed in Claim 12. In contrast, Adams, et al, discloses an Incoming Field Buffer 134a, that stores current, previous, and next video field pixel data. (Fig. 6, Col. 9, line 45 - 67).

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For the above reasons, Applicants respectfully submit that Claim 12 is not anticipated by Adams, et al. Claim 13 depends from Claim 12 and is respectfully submitted as not being anticipated by Adams, et al. for the same reasons as for Claim 12.

#### Response to Rejection of Claims 14-15 under 35 U.S.C. §102(e)

Claims 14 and 15 were rejected under 35 U.S.C. §102(e) as being anticipated by Callahan. Claims 14 and 15 were also rejected under 35 U.S.C. §102(e) as being anticipated by Tinker, et al. Applicants respectfully disagree.

Callahan does not disclose determining which of the component fields is the first component field as claimed in Step 14(b). As claimed in Steps 14 (c) and (d), the combined video image frame signal is generated based on the first component field, with the second component field being discarded. In contrast, Callahan teaches away from the present invention by disclosing that the "the method removes one of the fields as a first step in reducing the size of the image. It is immaterial which field is eliminated, and either one can be discarded." (Col. 4, lines 47-49, emphasis added).

For the above reasons, Applicants respectfully submit that Claim 14 is not anticipated by Callahan. Claim 15 depends from Claim 14 and is respectfully submitted as not being anticipated by Callahan for the same reasons as for Claim 14.

Moreover, Claim 15 includes the steps of generating a pixel line having a value comprising the average of each adjacent pair of the pixel lines that comprise the first component field; and providing the generated pixel line between the corresponding adjacent pair of pixel lines. Thus, as claimed in Claim 15, the combined video image frame includes lines that were not generated by averaging. In contrast, Callahan discloses having a resultant frame that is resized further by **only** using average lines and **not the original lines**. (Col. 4, lines 47-55). For the above reasons, Applicants respectfully submit that Claim 15 is not anticipated by Callahan.

Tinker, et al. does not disclose determining which of the component fields is the first component field as claimed in Step 14(b). As claimed in Steps 14 (c) and (d), the combined video image frame signal is generated based on this first component field, with the second component field being discarded. Moreover, Tinker, et al. does not disclose generating a pixel line comprised of average lines, as claimed in Claim 15. For the above reasons, Applicants respectfully submit that Claim 14 is not anticipated by Tinker, et al. Claim 15 depends from

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Claim 14 and is respectfully submitted as not being anticipated by Tinker, et al. for the same reasons as for Claim 14.

Claim 16 has been added to claim a device of Claim 1 wherein the detection unit is operative to determine the type of processing to be performed on a predetermined video frame signal based on a selection by a user of the digital video display device. None of the cited references disclose a detection unit as claimed in Claim 16.

Applicants respectfully request that a timely Notice of Allowance be issued in this case. If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (650) 470-2900.

Respectfully submitted,

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